



Submission 68

MISTA2013

EasyChair

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Paper 68

Title:	Generating Training Data for Learning Linear Composite Dispatching Rules for Scheduling
Paper:	PDF
Track:	Not in Conference
Author keywords:	scheduling job-shop ordinal regression sampling strategy learning heuristic search
EasyChair keyphrases:	pref pref pref (570), pref pref (246), dispatching rule (150), training data (120), job shop scheduling (110), ranking scheme (100), linear ordinal regression model (100), problem space (80), preference set (80), priority dispatching rule (79), mean relative error (79), percentage relative deviation (79), ranking strategy (60), job shop (55), learning algorithm (50), optimal dispatch (50), generating training data (47), optimal solution trajectory (47), shop scheduling problem (47), trajectory sampling strategy (47), most work remaining (47), processing time (40), statistical difference (40), training set (40)
Abstract:	A supervised learning approach to generating composite linear priority dispatching rules for scheduling is studied. In particular we investigate a number of strategies for generating training data for learning a linear dispatching rule using preference learning. The results show that generating training data set from optimal solutions only is not as effective as when suboptimal solutions are added to the set. Furthermore, different strategies for creating preference pairs is investigated as well as sub-optimal solution trajectories. The different strategies are investigated on 2000 randomly generated problem instances using two different problems generator settings
Time:	Feb 14, 09:32 GMT

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Reviews

Review 1

Review: I have found this paper really difficult to understand. The standard of written English is very poor and it makes concepts sometimes difficult to follow and often imprecise and open to misinterpretation. Similarly, the notation is not always clearly defined.

I am afraid I gave up trying to follow this paper about half way through. To be acceptable, it would need a total rewrite and I do not have the time, inclination or knowledge to undertake this task.

Review 2

Review: This work address'a number of strategies investigated for generating training data for learning a linear dispatching rule using preference learning. The results show that generating training data set from optimal solutions only is not as effective as when suboptimal solutions are added to the set. The fact of the chance of the learning ability after carefully creating the training data, this part remains as the focus of further work as the authors mention.

